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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,544

11/21/2003

Kazue Takayoshi

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23353

7590

09/20/2005

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EXAMINER

TZENG, FRED

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,544	Applicant(s) TAKAYOSHI ET AL.	
	Examiner Fred Tzeng	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-16 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Drawings

4. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hachisuka et al (USPN 6,479,988), hereafter as Hachisuka, in view of Tsunoda (USPN 6,101,054).

RE claims 1, 2, 4, 9, 10 and 12, Hachisuka discloses the invention substantially as claimed. Hachisuka discloses an amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal readout means, amplifying the signal by an amplifier, and outputting the amplified signal (see column 7 lines 18-31; i.e., the amplifier circuit 20 switched from non-readout state to a readout state based on a control signal from control computer 12), wherein the amplifier apparatus comprises filtering means for allowing a high frequency part of a signal to pass through (see column 6 lines 11-15;

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i.e., the high pass filter 231 for allowing a high frequency part of a signal to pass through).

However, Hachisuka does not specifically disclose that the filtering means having a first cutoff frequency during a first prescribed time period after the readout state is initiated, a second cutoff frequency that is lower than the first cutoff frequency during a second prescribed time period after the first prescribed time period has passed, and a third cutoff frequency that is lower than the second cutoff frequency after the second prescribed time period has passed.

Tsunoda teaches a programmable high pass filter HPF23 having parameters (such as the cutoff frequency f_c) each of which can be set to different values by the CPU (see column 2 lines 40-42) for providing an apparatus which has HPF to reduce the DC undershoot in a read-signal waveform, thereby to decrease a read-error rate (see column 3 lines 42-47).

Hachisuka and Tsunoda are combinable because they are from the same field of endeavor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Hachisuka invention by including the programmable high pass filter HPF 23 from Tsunoda invention in order to selectively provide three different cutoff frequencies, one lower another, at its respectively prescribed time period for a high pass filter HPF to reduce the DC undershoot in a read-signal waveform, thereby to decrease a read-error rate as expressly stated at column 3 lines 42-47 of Tsunoda.

RE claims 3 and 11, Tsunoda in view of the rationale above discloses that the filtering means for allowing the high frequency part of the signal to pass through is a high pass filter, and the high pass filter is placed between a first amplifier and a second amplifier, which are for amplifying the signal (see figure 1; i.e., the high pass filter HPF 23 is placed between first amplifier 3 and the second amplifier 25 for allowing the high frequency part of a signal to pass through).

RE claims 5 and 13, Tsunoda in view of the rationale above discloses that the switching means for controlling the amplified signal output, and the switching means being placed on an output side of the second amplifier (see figure 1; i.e., the delay circuit 22 is the switching means).

RE claims 6, 7, 14 and 15, Tsunoda in view of the rationale above discloses that the variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency (see column 2 lines 40-42; i.e., the programmable high pass filter HPF 23 can set its cutoff frequencies to different values).

RE claims 8 and 16, Tsunoda in view of the rationale above discloses that after the non-readout state is switched to the readout state, the variable filtering means has the first cutoff frequency during a first prescribed time period; the switching means is turned on, and the variable filtering means has the second cutoff frequency during a second prescribed time period after the first prescribed time period has pass; and the variable filtering means has a third cutoff frequency after the second prescribed time period has passed, wherein the first cutoff frequency is higher than the second cutoff frequency and the second cutoff frequency is higher than the third cutoff frequency (see

column 2 lines 40-42; i.e., the programmable high pass filter HPF 23 can set its cutoff frequencies to various values).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication from the examiner should be directed to Fred Tzeng whose telephone number is 571-272-7565. The examiner can normally be reached on weekdays from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8400 for regular communications and 571-273-7565 for After Final communications.

10. Informal regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Fred F. Tzeng', with a stylized, looped flourish at the end.

Fred F. Tzeng

September 15, 2005